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# SEARHC

222 Tongass Drive • Sitka AK 99835 • 907 966 2411 • Fax: 907 966 8300

February 27, 2002

Joel Neimeyer Project Officer Denali Commission 510 L Street, Suite 410 Anchorage, AK 99501

Dear Mr. Neimeyer:

Please accept the enclosed Progress Report for the SEARHC Angoon Medical Clinic project. Should there be any questions, feel free to call Matt Christner at 907.966.8313.

Sincerely,

Dennis Heller

Facilities Manager

# PROGRESS REPORT Angoon Medical Clinic Quarterly Report October 1 - December 31, 2002

Project No 0104

A/E Consultant:

N/A

Contractor:

N/A

#### Status:

An RFQ for Design/Build firms was prepared (see attached) for advertisement in January 2002. Responses will be evaluated and a contract for services secured by March 2002. Completion is scheduled for October 2002.

Construction Activities Completed to Date:

### Site

- Soils investigation and analysis completed. Preliminary site design prepared.
- No construction activity at this time.

#### Modular

RFQ Issued.

Questions or Problems during this period:

None

Workers on site subject to DBA wage requirements during this period:

Workers On Site				
0	Equipment Operators	0	Cement Masons	
0	Truck Drivers	0	Laborers	

Indian/ Alaska Natives employed during this period: 0

Attachments: (1) RFQ

(2) Soils Analysis and Site Design

Request for Qualifications Modular Services

### SEARHC

The SouthEast Alaska Regional Health Consortium (SEARHC) requests proposals from qualified modular building contractors, manufacturers, and distributors who wish to be considered for providing the design and construction of one 6,000-7,000 s.f. medical clinic and one approximately 2,000 s.f. clinic annex building located in the SE Alaska communities of Angoon and Klawock. Work shall consist of, but not be limited to, providing a design to meet SEARHC's documented space needs, off-site construction of the modular units, and providing the on-site installation of the units.

This is a qualification based procurement in which all proposers will be ranked using a point system of specific evaluation factors which are outlined in the proposal packet. Negotiations will occur between the highest ranked firm and SEARHC to produce a contract for services. Should this not be successful, new negotiations shall be initiated with the next highest ranked firm.

Interested firms must request a proposal packet which includes the evaluation criteria to be used in the procurement process.

Proposals will be accepted until 2:00 pm local time on February 6, 2002 at the SEARHC Facility Management Office, 222 Tongass Drive, Sitka, Alaska 99835. Phone 907.966.8409 Fax 907.966.8505.

Proposal packets are available at no cost at the above listed address and will be sent via Priority Mail unless proposer makes other arrangements. Instructions to Proposers
Project: Angoon and Klawock Modulars

### 1. Scope of Work:

The result of this Request for Qualifications will be the evaluation and selection of a qualified Modular manufacturing company to provide design and construction services including but not limited to:

Preparation of owner approved engineered drawings, construction of modular units, and on-site installation services. Installation services will be limited to the provision of equipment and labor, necessary to complete the placement of the units on an existing foundation with stubbed utilities and making any and all repairs and related constructions to make the clinic operational.

The target date for completion of the subsequent contract will be September 1, 2002

All proposers must have the capacity to either perform or subcontract the tasks outlined above within the project time line.

### 2. Submission Format:

Qualification proposals should respond with sufficient detail to evaluate all factors listed in the request packet. Refer to attachment A which lists SEARHC's evaluation criteria and required submissions. Failure to provide sufficient information for a particular item will result in receiving zero points for that particular item. Arrange the proposal in the same order as this selection criteria. All proposals are to be submitted in duplicate to the SEARHC Facility Management Office, 222 Tongass Dr., Sitka, Alaska 99835. The documents shall be sealed in an envelope labeled Modular Clinic Proposal, with the name of the proposer, date and time that the proposal is due.

### 3. Time for Receiving Proposal

The time is as stated in the Request for Qualifications unless subsequently modified by addenda.

### 4. Selection Criteria

SEARHC will attempt to negotiate a contract with the responsive proposer with the highest rating. A point system of significant specific evaluation factors, with a maximum of 100 points possible, is as follows:

A. Firm's history; experience and qualifications.

(O to 20 points)

B. References from a minimum of 3 and a maximum of 5 agencies who have had modular facilities designed and constructed by this firm.

(O to 25 points)

C. Successful modular medical clinic projects in SE Alaska or equivalent environments.

(0 to 30 points)

D. The firm's statement of capability to perform service and provide finished product within the SEARHC stated time objective.

(O to 25 points)

### 5. Evaluation Check List

Attachment A includes mandatory submissions required from each proposer. A proposal will be considered non responsive if any of the submissions are not included.

6. SEARHC reserves the right to reject any and all proposals or to waive any of the informalities in the RFQ.

# ENGINEERING SITE SOILS INVESTIGATON ANGOON'S S.EA.R.H.C. FACILITY

Prepared for S.E.A.R.H.C. 222 Tongass Drive Sitka, Alaska 99835

Prepared by
R&M Engineering, Inc.
6205 Glacier Highway
Juneau, Alaska 99801
(907) 780-6060 phone
(907) 780-4611 fax
rmengineering@rmjuneau.com

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# **ATTACHMENTS**

Topographic Survey with Soils Logs
Concept Site Layout
Cost Estimate
Total excavation
Partial excavation
Site Photographs

## Engineering Site Soils Investigation Angoon's S.E.A.R.H.C. Facility R & M Project No. 011736.1

### INTRODUCTION

In mid/late April, Mr. Jim Ginnaty of SEARHC requested fee proposals to conduct an engineering/land survey and a soils exploration program for the proposed SEARHC facility in Angoon, Alaska. The work purpose was to develop required technical information in support of a SEARHC medical facility in Angoon having an approximate building footprint between 6,000 and 7,000 square feet. The selected site was immediately east of the roadway intersection for Aan Deina Road and Relay Road southeast of Angoon's City Hall and immediately south of the newly constructed Angoon Post Office. The land is a metes and bounds parcel within a fraction of Lot 2, U.S.S. No. 10784. The legal description for the land was provided by a quitclaim deed from Koosnoowoo, Inc. to SEARHC filed in book 0541, page 252 of the Juneau Recording District, First Judicial District, State of Alaska.

This report completes our technical services (site engineering/land surveys and soils investigation) for the proposed SEARHC facility within the community of Angoon.

### SURVEY INFORMATION

The field survey plat, which was titled "Land and Topographic Site Survey of Angoon's 'S.E.A.R.H.C.' Facility" was accomplished in late April/early May 2001. It is attached hereto. The site survey included the gathering of topographic (land form) information for the 40,000 square foot lot, plus immediate surrounding land and planimetric features that would be of interest to the building siters and designers. The work included a 1-foot contour interval map and the location of adjacent man made features of surrounding lands. The map also located surface and sub-surface utilities.

The engineering survey document was transmitted both electronically and by letter dated May 8, 2001.

### SOILS INVESTIGATION

A soils investigation was requested without having a site specific building layout. The site, although road accessible, was not heavy equipment accessible, save and except for track mounted equipment. This would "disturb" the site. SEARHC elected to have R&M conduct the soils investigation by utilizing a soil test "A"-frame. This apparatus supports a Capsen engine used to turn a cathead to drive soils rod with a standard, 140-pound hammer, free falling a specified 30" distance. Normally, the number of blows required to penetrate sub-surface soils is an indication of the bearing abilities of

the soil. Samples are acquired during the driving operation through a split spoon sampler. The recovered soils are normally tested in our laboratory.

As no specific site layout was available, we placed five test holes/probes at or near the four corners of the rectangular site and one test hole in the site's center. From these five test holes, site soils interpretations could be made.

### ANGOON'S ENVIRONMENT AND GEOLOGY

Angoon; Angoon is the only permanent settlement on Admiralty Island. It is located on the southwest side of Kootznahoo Inlet, 60 air miles southwest of Juneau. The geographical position is approximately 52° 32' N. latitude and 134° 35' W. longitude. Angoon generally lies within T.50S, R.67E., C.R.M. Angoon's location is on the west shore of Admiralty Island and is situated on the narrow spit between Kootznahoo Inlet and Chatham Straights. Site topography is relatively flat as compared to the majority of southeastern Alaska.

<u>Climate</u>; Angoon has a maritime climate characterized by cool summers and mild winters. Summer temperatures average 45°F to 61°F while winter temperatures average 25°F to 39°F. Temperature extremes range between -06°F to approximately 80°F.

The community of Angoon receives much less precipitation then is typical for southeastern Alaska. This is largely due to the Baranof Island mountains reflecting storms away from Angoon. Precipitation averages 43 inches annually of rainfall and 63 inches of snowfall. Precipitation is heaviest from September through January, yielding about 60% of the mean annual area rainfall in this time period. Rainfall is lightest between April and July with about 25% of the precipitation at that time. During December through April much of the precipitation arrives as snow.

The prevailing winds are from the northeast during the winter, and the southwest during the summer. Angoon is only accessible by float aircraft and marine transport. Strong north winds during winter causing rough seas, which frequently prevent float planes from landing in the seaway of north/south Favorite Bay and exposed areas of Chatham Straights. An airport is in the planning process for this community. The Uniform Building Code of 1977 states that the minimum design wind speeds should be 100 mph.

<u>Area Geology</u>; Angoon geology can be largely divided into two basic groups. The first being the geology of the soils found in the area, while the second is the geology of the underlying and sometimes exposed bedrocks.

<u>Soils</u>; In addition to this work effort, soils information has been adopted from the United States Forest Service, Soils and Hydrology Management Report as well as documents from the U.S. Geological Survey and the Alaska Department of Transportation and Public Facilities. Two basic soils types are encountered in this study area.

Inorganic Soils; Generally these soils are found on benches, moderate site slopes and in ravines. The vegetation on these soils are predominately stands of Western Hemlock and Sitka Spruce. Typically, these soils consist of an organic mat of approximately 6" to 1' in depth, which is underlined by 1'-5' of silty and/or silty sand gravel. Beneath the gravelly soil is a layer of dense glacial till over bedrock. Bedrock is encountered in most cases between 2' and 10' below the ground surface. Isolated areas of deeper soils could exist. The majority of area soil has a tendency to have a "quick" nature to them. That is, the soil is stable in place, but once disturbed, it will lose certain engineering properties and become near liquid.

The U.S. Forest Service has described three major types of peat, which exist within the Angoon area. Type III (Kina and maybe silt peats) are the most predominate on the SEARHC site. This particular soil is found within vegetations of scrub cedar and sparse to moderate growth Western Hemlock. The depth to inorganic soils or bedrock varies between 2' to 10' and deeper in places. The engineering properties of this peat includes high consolidation, high moisture content, and relatively low strength properties. The water table is generally at or near the ground surface.

**Glacial Till**; Glacial till is a compressed silty sand with gravel that predominately occurs over bedrock. The material is blue to gray blue in color and its local coloquialism is blue clay. The material is as dense as bedrock. However, when exposed to water, the surface becomes fluid and is generally extremely difficult to work.

**Bedrock**; The rock that underlies the study area are schists and marbles of the Ambular Bay formation. Schists and some lesser phylites outcrop along shores of Killsanoo Harbor. Typically the schists can vary between Chlorite-Albite schists to a quartz-muscovite schists. No rock outcrops were found in our field investigation.

### SITE INVESTIGATION

The subsurface soils exploration was conducted during May 2001. The soils investigation was conducted by employing a soil test A-frame driving a standard 1.4" split spoon sampler with a 140 lb hammer. The hammer is raised by means of a Capsen engine and allowed to free-fall a standard 30" distance. The number of blows required for this split spoon sampler to penetrate 1' of soil is normally an indication of that soils resistance and bearing values. This method of soil investigation was conducted, as the site was reported to have an excess of 20' of peat and also to minimizes site disturbance. An investigation by a small excavator would not reach such excessive depths and would greatly disturb the site.

Five test pits were placed within the 1-acre site. Test pits were at the northwest, northeast, southeast, and southwest corners of the site with one test pit being in the central area of the site. The soil test A-frame was carried from site to site, with only minor brushing being conducted at each exploration area.

### SOILS INVESTIGATION FINDINGS

Soils at the site were found to be of three types, plus assumed bedrock and/or extremely dense glacial till. The three types of soils included peat; silt with peat; glacial till and/or rock.

Within the site land and topographic survey plat, a summary table of soil probes is found. Generally, peat was found to be 4 to 7 feet in depth followed by silt with peat, being 4' to 10.5' in depth. Glacial till or a compressed silt over what "is assumed" to be bedrock, was found to be between 8 and 13.5 feet in depth with the bedrock and/or the test probes refused surface on glacial till varying in depth from 8.5' to 13.5'.

All recovered soil samples were wet. All recovered soil samples were unusable as an embankment material.

### SITE RECOMMENDATIONS

The chosen site is not suitable for immediate construction without extensive preparation. The preparation can be in two methods regarding the building facility. For the embankment, which will support the building facilities and parking area and access road, two construction methods are also available.

**Parking Area**: For the parking area and access road, the method of construction are;

- Depending on the recommended building floor elevation, a geotextile fabric placed over in-situ organic stripped soils with suitable embankment material placed on top of the fabric.
- Totally over-excavate the unusable soils and replace with embankment material.

The latter is the more appropriate method of construction regarding site settlement and long-term site stability. The former is the least expensive method. Also, a combination of the two construction methods can be accomplished.

<u>Building Area</u>: For the building facility, two methods of construction exist. These methods are piling and/or site overexcavation and backfill.

<u>Piling</u>: Piling for a foundation system could be either "H" pipe, pipe pile, and/or treated timber pile. They would all be placed to an end-bearing value, with the limitation in all probability being the pile strength. During our investigation, we recovered small rock fragments. It is felt that a metal-tipped timber pile could be embedded in the bedrock as could be a pipe pile and/or an "H" pile.

On top of the piles a system of footing will be integrated into the proposed single story building. Piling and footing would have to account for Angoon's seismic zone. By the 1997 Uniform Building Code, Angoon appears to be in between seismic zones 3 and 4.

We recommend that the design account for the most stringent seismic zone possible and design the facility accordingly.

Over Excavation/Backfill: The alternative method of construction would be site over excavation of unsuitable soils and backfill with foundation soils. In this instance, approximately 8' to 13' of material around the building footprint plus at a minimum 5' and a more desirable 10' beyond the footprint is recommended to be accomplished. The over excavated material could be "wasted" at the existing sanitary landfill for cover. Imported backfill could come from the rock quarry located at approximately 1 mile, Auk-Tah Lake Road, or any of the private land quarries between the City of Angoon and the Kootznahoo quarry. Bedrock borrow should be limited to a maximum of 18" in size, reasonably well graded and be consolidated by a combination of equipment walking and a 20-ton vibratory compactor consolidating the material. Lifts should not exceed 2-feet maximum, save and except the initial lift which could be no more then 3' in depth in order to support equipment.

The foundation soil bearing value utilizing this construction concept is recommended to be 3,000 p.s.f. If the parking area is chosen to be only partially excavated, an earth contractor must ramp down to the overexcavated building site and build his material up. If partial over excavation is used in the parking area, the geotextile fabric is recommended throughout the parking area driveway.

The building site is recommended to be excavated to glacial till and/or bedrock. Utility trenches should be excavated to firm glacial till and/or bedrock and backfilled with shot or crushed rock.

### **ENGINEERING COST ESTIMATES**

Various members of the SEARHC engineering staff requested of our firm to perform civil cost estimates for site preparation after we verbally reported our soils investigation findings. At the time of the request, no site design had been prepared by SEARHC. It was felt that a 6,000 to 7,000 square foot building would be constructed on site with the parking requirements equaling either the City and Borough of Juneau and/or Sitka's outline.

R&M prepared a site layout based on the parking and zoning requirements for the City and Borough of Juneau. We used a 10' side yard setback and a 20' front and rear yard property line setback. We determined that for a 7,000 square foot medical clinic, 24 parking spaces total would be required with two of these parking spaces being for handicapped vehicles. We also provided an open entrance area for an emergency vehicle. Please refer to the site plan attached hereto.

Based on the above referenced site plan, two methods of foundation and parking area preparation were estimated. The first estimate completely overexcavated the 1-acre site, backfilling with shot rock and connecting sewer and water utilities to those public

facilities of Angoon. Our estimated construction cost with 10% contingencies was \$511,880. Other costs associated with this will include site surveys, a soils investigation, civil engineering design; construction management, administration and overhead with environmental studies and permitting. This "other cost" total was estimated to be \$90,277. This brings the total estimated cost for an overexcavated site to \$602,156.

The second method of construction is to "float" the parking area, placing it on a geotextile fabric. The building site would be completely excavated 8 to 13 feet in depth with a maximum width around the building of 10 feet, coming upwards at 1:1 side slope. The estimated construction cost for this method is \$427,730 while "other costs" total \$78,045. The total site development cost including the site engineering is estimated at \$505,775.

Please find attached our cost estimates and quantities. Also, please be advised that we believe a Corps of Engineer's Wetlands Permit is required for this site due to the "forested" wetlands.

### **CLOSURE**

This document includes:

- A copy of our site survey with soil test probe location and results placed thereon;
- A copy of our conceptual site plan for cost estimating purposes;
- Two cost estimates of site civil development costs. One is for total site excavation, while the other being for partial site excavation. In both cases, we have recommended and shown that the building footprint be totally excavated to firm bearing material, which could be glacial till and/or bedrock (bedrock recommended).

Should there be questions with these documents, please do not hesitate to contact us.

R & M Engineering, Inc.

Attachments

R&M Engineering, Inc.

